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**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Application Number: 09/995,258
Filing Date: November 27, 2001
Appellant(s): MARINET ET AL.

Jack Abid
Reg. No. 58,237
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed December 17, 2007 appealing from the Office action mailed August 16, 2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is deficient. 37 CFR 41.37(c)(1)(v) requires the summary of claimed subject matter to include: (1) a concise explanation of the subject matter defined in each of the independent claims involved in the appeal, referring to the specification by page and line number, and to the drawing, if any, by reference characters and (2) for each independent claim involved in the appeal and for each dependent claim argued separately, every means plus function and step plus function as

permitted by 35 U.S.C. 112, sixth paragraph, must be identified and the structure, material, or acts described in the specification as corresponding to each claimed function must be set forth with reference to the specification by page and line number, and to the drawing, if any, by reference characters. The brief is deficient because the description of the random component is inaccurate. Reference is made to the "random component", item 32 in Figures 1, 3a-3b, & 4; and from the specification on page 6, line 7 through page 7, line 5; and page 8, line 23 through page 10, line 17.

Upon review of these cited portions, the "random component" is referenced as $\Delta I$, see page 6, lines 29-31. Later, it is further described that "the drain-source current includes a random component when the channel dimensions are chosen to the minimum resolution allowed by manufacturing technology in use", see page 9, line 19 through page 10, line 17. Based on these cited portions of the specification, the random component is determined upon the bending or folding of the channel.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

4,862,237 MORAZUMI 8-1989

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 17-32 and 42-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Morozumi, U.S. Patent 4,862,237.

As per claim 17, Morozumi discloses of a random signal generator comprising an electronic noise source comprising a folded MOS transistor having a drain-source current with a random component, said folded MOS transistor comprising a drain and a source with a folded channel defined there between, and a circuit for generating a digital signal based on the random component (col. 3, lines 5-22 and col. 9, line 60 through col. 10, line 15).

As per claims 18,26 and 43, it is disclosed by Morozumi that the channel is S-shaped and has a size that is at a resolution limit based upon manufacturing technology (as shown in Figure 14a, #124).

As per claims 19,27, and 44, it is taught by Morozumi that the channel is zigzag-shaped and has a size that is at a resolution limit based upon manufacturing technology (as shown in Figure 14a, #124).

As per claims 20,28, and 45, Morozumi discloses of a reference transistor connected to the folded MOS transistor, the reference transistor receiving gate voltage and a bias current equal to a gate voltage and a bias current applied to the folded MOS transistor for causing the drain-source current therefrom to randomly vary (col. 11, lines 5-23).

As per claims 21,29, and 46, Morozumi teaches of a comparison circuit for comparing the randomly varying drain-source current to a detection circuit (col. 3, lines 5-22 and col. 9, line 60 through col. 10, line 15).

As per claims 22,30, and 47, it is disclosed by Morozumi that the comparison circuit determines a difference between the randomly varying drain-source current and the detection circuit and further comprising an amplifier for amplifying the difference (col. 12, lines 26-46).

As per claims 23,31, and 48, it is taught by Morozumi that the circuit comprises a sampling circuit for sampling the digital signal for providing a random digital word (col. 3, lines 5-22).

As per claims 24,32, and 49, Morozumi discloses of an integrating circuit for maintaining a gate voltage on the folded MOS transistor within a desired range of values (col. 11, lines 5-23).

As per claim 25, the teachings of Morozumi disclose of a random signal generator circuit that comprises a plurality of random signal generators, each random signal generator comprising an electronic noise source comprising a folded MOS transistor having a drain-source current with a random component, the folded MOS transistor comprising a drain and a source with a

folded channel defined there between, and a circuit for generating a digital signal based upon the random component. A logic circuit connected to the plurality of random signal generators for combining the digital signals for generating a digital number (col. 3, lines 5-22 and col. 9, line 60 through col. 10, line 15).

As per claim 42, the disclosure of Morozumi recites of a method for generating a random number from an electronic noise source. A folded MOS transistor is provided having a drain-source current with a random component, the folded MOS transistor comprising a drain and a source with a folded channel defined there between, and a random digital signal is generated based upon the random component (col. 3, lines 5-22 and col. 9, line 60 through col. 10, line 15).

**(10) Response to Argument**

It is argued by the Appellant that the claims recite of "an electronic noise source comprising a folded MOS transistor having a drain-source current with a random component". It is alleged by the Appellant that "Morozumi depends on predictable currents being generated in the channel of the sensing cell to generate accurate signals relating to the image being sensed" and furthermore, Morozumi fails to disclose "a circuit for generating a digital signal based upon the random component."

As per the Appellant's assertion that an electronic noise source is not taught, Morozumi discloses of using capacitors to filter out the noise component, see column 12, lines 3-14 and 26-29. Since noise is taken into account, then an electronic noise source is taught by the disclosure of Morozumi.

As per the Appellant's assertion of a "random component", the examiner disagrees with the Appellant, according to the Appellant's specification on page 6, lines 29-31, the "random component" is ΔI wherein "the drain-source current includes a random component when the channel dimensions are chosen to the minimum resolution allowed by manufacturing technology in use" and "the random component ΔI of the drain-source current increases as the number of bends in such a transistor increases", see page 9, line 19 through page 10, line 17. Based on these cited portions of the specification, the random component is determined upon the bending or folding of the channel which produces a random signal. According to the Appellant's arguments, asserting that Morozumi produces "predictable" results is a contradiction of the properties of a "folded channel" as is recited in the Appellant's specification since the Appellant has described provided a "folded, or bent channel" produces a random signal. The claims do not further limit what constitutes a "random component" or of its functionality and the element is merely recited without being further limiting which is indicative of intended use. The examiner is basing the interpretation of a "random component" from the Appellant's specification which is dependent upon the folding, or bending of the channel which Morozumi explicitly discloses, see column 10, lines 13-15, is viewed as a "random component" to produce a random signal.

As per the Appellant's arguments pertaining to a circuit for generating an output dependent upon the random component, Morozumi discloses of a C-MOS scanning circuit comprising cells, within the cells are transistors which contain the folded channels producing a "random component", see column 10, lines 13-46 and column 11, lines 47-58. The Appellant's arguments are hereby moot.

The Appellant argues that if a claim element is not expressly disclosed by the prior art, the teaching must inherently disclose the element in order to establish anticipation.

The examiner disagrees with the Appellant, inherency has never been established by the examiner and the Appellant's assertion of inherency being applied is inaccurate.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Christopher A. Revak/

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